FINANCIAL ODYSSEY OF INDIA's NATIONAL PENSION SCHEME: APPRAISAL OF TRENDS, FINANCIAL PERFORMANCE AND FUTURE PROSPECTS

Synopsis

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INTRODUCTION

"Economic growth without investment in human development is unsustainable and unethical" –

Amartya Sen, Economist.

The National Pension Scheme was first introduced in the country's 2003-04 union budget and was launched in the year 2004 by the Central Government. In the year 2009, it became open to all the employees in the country. In the same year on May 1st, it became open to all the citizens of India. It is a relief to those who could not avail the benefits of the old pension system. It provides a chance for its holders to retire with dignity and financial security. As retirement should be enjoyed and not spent in stress, thinking about livelihood and finances. It should be seen as a fresh stage of life to carry out some new ventures and unfulfilled passion, as "retirement is the beginning of the open highway" – anonymous.

Historical Context

Before NPS, India's pension system was dominated by benefit schemes, sponsored by the government such as the **Employees' Pension Scheme (EPS)**, available to the employees working in the government and organized sector only. But with time, there has been a significant increase in the life expectancy and the population of the elderly. Hence, these pension schemes were difficult to sustain in the long run as they posed a heavy financial burden to the government and public sector employers. In the old system, future pension liabilities were unpredictable as a confirmed pension based on the last drawn salary was given to the employees.

In contrast, NPS is a more viable option to plan for retirement as it works on a market-oriented approach. It becomes more sustainable in the long run as it observes a **market-linked model**, where the returns on investment are subject to market performance. It makes the person himself/herself as well as the government pool for post-retirement benefits and relieves the burden on the government. The NPS aligns with global trends in pension reform, where many countries have shifted from pay-as-you-go pension systems to contribution-based models to mitigate the fiscal burden on governments. Not only India, but many other countries like the United Kingdom, Sweden, and Chile have all brought similar pension reforms in their system in recent decades, highlighting the significance of NPS in the broader context of global retirement policy evolution.

Key Features and Structure of NPS

One of the key characteristics of the National Pension System (NPS) is its flexibility. Subscribers can determine the amount and the distribution of their contribution across different asset classes. Generally, the NPS gives an option to invest in Equities (E), Corporate Bonds (C), and Government Securities (G), each offering different risk-return profiles. Equities can provide higher long-term returns but are risky, while government securities offer more stability but are low in returns. Subscribers can opt for **Active choice** option to manage their investments themselves, or they can select the **Auto Choice** option, where investments are automatically allocated based on their age.

Another significant feature of the NPS is its portability. Unlike traditional pension systems, which require individuals to stay with the same employer to continue accruing benefits; in NPS, accounts can be maintained while switching jobs or moving across India.

The NPS subscribers hold a special account number which is called the 'Permanent Retirement Account Number' (PRAN). The subscribers can open this account with a minimum amount of Rs. 500. They can contribute to this account throughout their professional life and can collect money for their retirement with a rational market-based return. The subscriber can be anyone falling in the age group of 18-40 years, working in either public or private sector. Self-employed people can also invest if they do not have a turnover of more than 1.5 crores.

The transactions, contributions, and investment records are online which makes the system transparent. The online platform provides the subscribers with the freedom to choose the Pension Fund Manager; switch to investment option and pension fund; monitor their returns and investments; etc.

These are regulated and taken care of by 'Pension Fund Regulatory and Development Authority.' The Finance Department deals with the NPS in the state. Besides this, the Additional Secretary, (Pension) has been designated the State Nodal Officer (SNO) to supervise all the NPS related activities taking place in the state.

Under the NPS, subscribers are required to invest in pension funds managed by registered **Pension Fund Managers (PFMs)**, who invest the accumulated contributions in a range of financial instruments including government bonds, equities, and corporate debt. At the time of retirement, subscribers can withdraw a portion of their corpus as a lump sum and use the remainder to purchase an annuity, providing

them with a regular income stream post-retirement.

The NPS is governed by the Pension Fund Regulatory and Development Authority (PFRDA), which ensures that funds are managed transparently, securely, and efficiently.

Tax benefits are also a major factor resulting in NPS adoption. Contributions to the NPS qualify for tax deductions under Section 80CCD of the Income Tax Act, with additional deductions available beyond the standard limits. Withdrawals made at retirement are partially tax-exempt, further increasing the scheme's attractiveness as a long-term investment option.

Financial Performance and Its Significance

The financial performance of the National Pension System (NPS) is an important aspect of the scheme, as it directly influences the retirement savings of its investors. Unlike traditional pension schemes with fixed benefits, NPS returns are decided based on the chosen asset classes and the performance of various pension fund managers. This market-based approach is characterised by both- the potential for higher returns through equity investments and market volatility risks.

On average, NPS funds have consistently surpassed other fixed-income savings options like the Public Provident Fund (PPF) and Employee Provident Fund (EPF). Over the past decade, the NPS has given impressive returns, especially for those who opted for a higher allocation in equities. With an increase in the awareness of equity-linked investments and the long-term benefits of compounding, more individuals are opting for a balanced asset allocation within the NPS.

Contribution to Society and Economic Stability

From a broader societal standpoint, the National Pension System (NPS) is important in addressing the increasing demand for financial security in old age. NPS provides the elderly population with financial independence, and they do not need to rely on their family for any assistance. One of the most significant features of the NPS is its inclusion of the informal sector employees and the self-employed, giving them an investment opportunity to secure their retirement.

This long-term saving scheme creates mutually beneficial relationship by not only benefitting its subscribers but also the nation. The funds collected through the NPS support economic growth and development, and are invested in the country's financial markets, supporting infrastructure projects, corporate debt, government bonds, etc.

Relevance of This Study for Society

This research on the National Pension Scheme is essential for understanding how the scheme can be improved to ensure wider adoption and greater financial security for the elderly. By examining the trends in subscriber growth, analyzing the performance of different pension funds, and understanding the perception of subscribers, this study will offer critical insights into how the NPS can be made more efficient and inclusive.

The study will also raise awareness about the importance of early retirement planning and financial independence, which is crucial for creating a financially resilient society. By empowering individuals to take control of their retirement savings, the NPS will not only help improve individual financial well-being but will also contribute to the long-term stability and growth of the Indian economy.

In the **Union Budget 2024**, Finance Minister **Nirmala Sitharaman** introduced several reforms aimed at enhancing the attractiveness of the National Pension Scheme (NPS) and expanding its reach. Key measures included extending the **14% employer contribution** benefit, previously available to central government employees, to **state government employees** as well, promoting parity and encouraging wider adoption. Tax incentives were also improved, with an **increase in tax exemptions** on NPS withdrawals, allowing retirees to withdraw a larger portion of their corpus without tax liability. A **minimum guaranteed pension option** was introduced to provide security and predictability for subscribers, addressing concerns over market-linked volatility. The government also emphasized **inclusion of the informal sector**, streamlining enrolment processes, and promoting awareness. Additionally, **digital infrastructure** for NPS was strengthened, aiming to simplify account management and improve user experience through technology, while efforts to improve **annuity rates** and diversify post-retirement income options were prioritized. These changes reflect the government's commitment to making the NPS more flexible, inclusive, and aligned with the evolving retirement needs of Indian citizens.

REVIEW OF LITERATURE

Review of literature is an important part to conduct any research. It gives an insight into the data that is already available on the topic and can be processed to make information. Based on secondary sources, it helps researchers to tap on the research gaps and think about possible research problems. A meticulous

literature review is also required to ensure that there are no identical conclusions in two carried out research.

With increased healthcare facilities, the life expectancy of people in India has increased. This means that the people will now have more years to live in their post-retirement age. As a result, more Indians are willing to invest for a retirement income for a planned retirement. Here comes the role of the NPS (National Pension Scheme), which is an initiation of the Indian government. It seeks to provide retirement income not only to public sector employees, but also to private sector employees, and individual subscribers. Along with this, it also offers a variety of other benefits such as diversified investment options, tax advantages, etc.

There is a lot of data available on how the scheme operates; its framework; and perception of the investors. This data can be used to identify the gaps or loops in its effectiveness, possible challenges, and potential areas for improvement.

Table 1: Numbers of Review of Literature

Review	**Numbers**
International	22
National	11
TOTAL	**33**

Table 2: International Literature Reviewed

S. No.	**Authors**	**Year & Journal**	**Title**	**Objectives**	**Findings**
1.	Chauhan, K.	2024 *International Journal for Multidisciplinary Research (IJFMR)*	Effective Pension Fund Management Strategy: A Comprehensive Study with Methodological Insights from the Indian Financial Landscape	To inspect effective pension fund management strategies in India to identify key factors that impact pension fund performance.	The researcher found out that a positive correlation between AUM and ROI, pointing that larger pension funds tend to achieve higher returns, likely due to economies of scale and access to a wider range of investment opportunities. Conversely, higher management fees are associated with lower ROIs, highlighting the importance of cost efficiency in improving fund performance. These insights highlight the crucial roles played by scale, cost management, and experience in pension fund management.
2.	Kumar,	2024	A Comparative	This study	The study revealed a

	A., Rashmina, & Yadav, H.	*Journal of Emerging Technologies and Innovative Research (JETIR)*	Analysis of Government Employee Retirement Pension Schemes in India: A Case Study of OPS and NPS	aims to find out the best pension arrangements for retired government employees and examine NPS's effectiveness in ensuring security and protecting retired workers' rights.	preference for the Old Pension Scheme (OPS) among government employees in India due to its guaranteed benefits and family pension provisions. the National Pension Scheme (NPS) is less favoured due to its market dependency and concerns about income security in retirement. The research highlights that the NPS may increase financial anxiety among retirees.
3.	Khatoon, S., Husain, S. S., & Siddiqui, F.	2024 *International Journal of Creative Research Thoughts (IJCRT)*	National Pension Scheme: A Retirement Plan	This study explores the features & importance of NPS along with an analysis of its taxation framework.	The study highlighted structure of NPS, offers two types of accounts: Tier-I (compulsory) and Tier-II (voluntary), with investment options in either "Active Choice" or "Auto Choice" for fund allocation. It provides tax benefits, including deductions on contributions. While NPS is a flexible and beneficial retirement planning tool, many investors still lack a full understanding of NPS.
4.	Deeti, A.	2023 *International Research Journal of Economics and Management Studies (IRJEMS)*	The Conundrum of the Pension System in India: A Comprehensive Study in the Context of India's Growth Story	The study's objective is to analyze the NPS in India, particularly the NPS, and explore challenges and improvements for the future.	The study concluded a significant difference between pension amounts under OPS (₹11,22,768/month) and NPS (₹2,66,746/month) for similar employees. It suggests improving NPS by increasing employer contributions, raising the equity investment cap, and limiting corpus withdrawal to 25%.
5.	Dhanawade, N. D.	2023 *Journal of Emerging Technologies and Innovative Research (JETIR)*	Study of Awareness Level About National Pension System Among Citizen of Mumbai City	This study aims to find the awareness level regarding the NPS among Mumbaikars and to understand NPS' various benefits.	The research paper discloses a low awareness of the National Pension System (NPS) and its benefits among Mumbaikars also indicate a major need for enhanced financial education and awareness programs to inform individuals about their retirement plans.

6.	Maithri & Panakaje, N.	2023 *International Journal of Case Studies in Business, IT, and Education (IJCSBE)*	Investment in National Pension Scheme: Issues and Trends	This study examines various retirement investment plans and evaluates positive investment trends in NPS	The study highlighted that Indians tend to invest rarely in retirement plans, which is influenced by both internal factors like financial literacy and saving habits, and external factors such as social, economic, and environmental conditions. However, promoting NPS adoption faces challenges due to limited financial literacy.
7.	Shukla, S. K., Mishra, A., Dwivedi, A., Rai, A., & Rawat, K. A	2023 *SATRAACHEE (UGC Care Research Journal)*	A Comparative Study of Old Pension Scheme and National Pension Scheme	To compare; and to investigate the reasons for the acceptance of the NPS and the OPS.	The findings suggested that most lower and middle-income Indians working with different employers prefer the Old Pension Scheme (OPS) over NPS due to its guaranteed financial security, family pension benefits, and assured post-retirement income., even under the 2023 tax slab, employees opting for the new regime cannot claim deductions on their contributions under section 80CCD. As a result, some NPS users may consider switching to OPS, with the majority favouring OPS over NPS.
8.	Aggarwal, S., Khanna, A., & Kumar, P.	2023 *Journal of Contemporary Issues in Business and Government*	Is The National Pension System as Promising as The Old Pension System in Terms of Beneficiaries' Interest in India: A Comparative Analysis	To compare the old vs new pension scheme	The study found out that: 1. NPS gives lower pension amount than OPS to all age groups and for all job profiles, with 9% ROI and 14% government contribution. 2. The lump-sum fund value is higher in NPS than OPS for employees starting at age 25 and 30, but lower for those starting at 35. 3. If someone starts investing at 25 years of age, increased ROI i.e. 12% also increases the pension amount in the case of NPS. The lump-sum value also increases significantly in NPS. 4. If employees start at 25 years of age and change the allocation ratio from 60:40

					(pension: lump-sum) to 50:50; results in increased pension amount in NPS, making it higher than OPS.
9.	Narayana, M. R.	2022 *Journal of Social and Economic Development - Springer*	Improving economic security for older persons by public pension schemes: evidence from National Transfer Accounts for India	This study explores how poverty and inequality affect elderly economic security and the impact of public-funded pensions in reducing insecurity.	The study shows remarkable age and intergenerational patterns for elderly persons in terms of labour income, consumption, income and consumption inequalities, consumption poverty, and inequality-adjusted inequity. The study finds that the public-funded IGNOAPS can improve the economic security or reduce the inequity for the older persons at a national cost of less than 0.20% of the total revenue or consumption expenditure of the Government of India.
10.	Bodhgire, N. B.	2021 *Research Journal of Humanities and Social Sciences*	National Pension Scheme in India: Functions and Performance	This study explores the functions and operations of various pension fund managers under the scheme.	The study revealed that SBI Pension Fund outperformed other managers like UTI Retirement Solutions and LIC Pension Fund in both central and state government schemes, while HDFC Pension Fund achieved the highest average returns in Tier-I equity funds, with UTI following. ANOVA results indicate significant differences in returns among pension fund managers over different periods. The superior performance of SBI and HDFC highlights their effectiveness in generating higher returns for NPS subscribers.
11.	Pooja, V. & Malaimagal.	2021 *Arabian Journal of Business and Management Review*	A Critical Study on National Pension Scheme and Its Applicability	This study aims to analyze five-year returns to identify the best NPS fund and examine the relationship between various schemes in Tier 1 NPS accounts.	The study found that the NPS is a flexible and tax-efficient retirement savings scheme, which provides two investment options: Auto Choice and Active Choice. The NPS portfolios are limited to a maximum of 50% exposure to equity, which may not be suitable for younger investors seeking higher returns.

12.	Poongothai, T., & Jayanthi, M.	2020 *Journal of Emerging Technologies and Innovative Research (JETIR)*	National Pension System for Retirement Planning	The study aims to understand the structure and significance of the National Pension Scheme (NPS)	The study concludes that NPS helps manage savings through a defined contribution system for retirement. It includes Tier-I (mandatory and withdrawable) and Tier-II (voluntary and non-withdrawable) tiers. Investors can select from investment options (E, C, G, A) or use "Auto Choice." Key entities include NPS Trust, Central Recordkeeping Agency, and Pension Fund Managers. NPS offers flexibility, portability, low costs, and tax deductions, making it an attractive retirement savings tool.
13.	Maheshwari, A. R., & Bhutada, N. J.	2019 *International Journal of Creative Research Thoughts (IJCRT)*	A Review on Indian Pension System: Problems and Prognosis	This study compares Indian pension schemes to identify the most advantageous options for pensioners.	The study reveals that: 1. Retirement age: In India, the retirement age is 65 years for both males and females; while in China, it is 60 years for males, 55 years for white-collar females, and 50 years for blue-collar females. 2. Asset allocation: In India, the New Pension Scheme (Tier-1) allows withdrawal of only 20% of the contributed amount before age 60, while the remaining 80% must be invested in annuities. In China, the National Social Security Fund allows investment in various asset classes, including low-risk, moderately low-risk, and high-risk, high-return options. 3. Tax benefits: India provides tax exemptions for both employee and employer contributions to pension schemes, while China only provides tax exemptions for employer contributions, with no additional tax benefits for employees.
14.	Jariwala, P.T.	2019 *Internati*	Performance of National	This study aims to	The study discloses that NPS equity (E) schemes had

		onal Journal for Research in Engineering Application & Management (IJREAM)	Pension Scheme Tier 1 in India	evaluate the performance of NPS Tier I schemes from various companies since inception, analyze the relationship between the various investment options	negative returns in the first year, with HDFC at -1.86% and LIC at -4.73%. Government bond (G) schemes, particularly LIC, had high returns, while corporate debt (C) schemes also showed positive first-year returns. Over three and five years, E schemes grew positively, with HDFC leading at 8.32%. Bold investors should consider up to 50% in equity, while secure investors should focus on bonds. Selecting the right pension fund manager is important for long-term NPS investments.
15.	Tyagi, A.	2018 *International Journal of Creative Research Thoughts (IJCRT)*	NPS and NSSF: A Comparative Analysis of Pension Schemes in India & China	The core objectives of this study to compare India's and China's pension schemes	The study compares pension reforms in India and China, noting that Chinese retirees, retire earlier (men at 60, women at 50-55), and retrieve pensions earlier, possibly improving their quality of life. India's tax deductions for pension contributions under section 80C contradict with China's lack of tax relief. Investment strategies vary, with India preferring equities and China favouring bank deposits and government bonds.
16.	Gupta, P., Sharma, K., & Jain, P.	2018 *International Journal of Management, Technology and Engineering*	National Pension System: An Efficient Fuel for Retirement planning in India	To examine the National Pension System provided by the Government of India, and to explore whether the benefits being provided by the NPS could serve the needs of the retired people and thus could become an efficient fuel for retirement	The study reveals that NPS offers several benefits such as low administrative charges, tax advantages, portability, and online accessibility. It provides regular income after retirement through annuity options. NPS also offers flexibility in investment choices, allowing investors to decide their asset allocation. The authors conclude that NPS is an efficient and attractive option for retirement planning in India. The scheme's features like simplicity, transparency, low cost, and tax benefits

				planning.	differentiate it from other pension plans and make it a suitable choice for citizens.
17.	Bhanu, U.R, & Lakshmi, S. P.	2018 *International Journal of Creative Research Thoughts (IJCRT)*	Performance of National Pension Scheme	To know about the NPS and to understand the performance of different Pension Fund Managers under NPS; and, to pick out the best among them.	The researcher concludes that NPS-E (Equity) funds delivered positive one-year returns, with HDFC leading at 28.89%, while NPS-C (Corporate Debt) funds mostly had negative short-term returns. NPS-E funds outperformed NPS-C, showing better risk-adjusted returns due to higher equity risks.
18.	Hooda, N., & Chhikara, K. S.	2018 *International Journal of Research and Analytical Reviews (IJRAR)*	National Pension System- the way forward towards pragmatic approach to sustainable investment system	The main objective of the present study is to know thoroughly about the NPS and its performance.	The study reveals that the NPS Swavalamban scheme had the highest number of subscribers and contributed the most to the total AUM and contributions during the study period. The State Government and Central Government sectors also witnessed significant shares. However, the participation was less from the corporate and unorganized sectors. The study also suggests that while the NPS has performed well during its initial years, the growth trend at the end of the study period has lowered. This indicates the need to spread awareness promote participation in NPS by corporate and unorganized sector employees.
19.	Mahanti, A., Tripathy, S. K., & Sundaray, B. K.	2017 *International Research Journal of Management Science & Technology*	Perception towards the Acceptability and Implementation of the New Pension Scheme: A Study in the State of Odisha	To examines Government of Odisha's perception towards the acceptability and implementation of the NPS.	The findings of the study indicate that the National Pension System offers significant benefits compared to previous pension schemes. It provides more flexibility, tax benefits, and investment options, which are appreciated by the participants. However, there are challenges related to the awareness and understanding of the scheme among potential beneficiaries. The study also highlights the need for improved infrastructure and

					services to enhance the system's reach and effectiveness. The results suggest that while the NPS is a step forward in pension reform, further efforts are needed to address the concerns of all stakeholders involved.
20.	Kamath, D. V., & Patil, D. R.	2017 *International Journal of Management (IJM)*	Cost Benefit Analysis of National Pension Scheme	This study is to compare the National Pension System (NPS) based on costs, returns, and tax benefits to other pension schemes to determine its overall effectiveness for retirement planning.	The paper concludes that the (NPS) is a distinctive pension scheme having various advantages. It differentiates from other unit-linked pension plans by low processing charges, which is one of its key features. Its uniqueness further adds on by allowing its investors to choose market-linked annuities based on their risk appetite, adding to its uniqueness. Furthermore, NPS offers substantial tax benefits, such as deductions for additional investments of Rs. 50,000 under section 80CCD(1B) and contributions up to 10% of the salary under section 80CCD (1) of the Income Tax Act, 1961, which are not available in other government investment options
21.	Das, M.	2016 *Social Science Research Network (SSRN) Journal*	Review of Pension Schemes in India	The paper aims to analyze the Life Insurance Corporation of India's (LICI) significance in relation to its pension schemes and evaluate the causal relationship between the effectiveness of central government pension schemes and those run by LICI.	The paper's findings highlight noteworthy challenges in India's pension schemes, particularly the Atal Pension Yojna and the role of the Life Insurance Corporation of India (LICI). Key issues include low coverage, underperformance, and administrative difficulties, intensified for the bad by the informal workforce's growth. Gender inequality is a critical barrier, with women facing disadvantages that lead to lower pension benefits. Concerns about the Atal Pension Yojna include unclear benefits for

					Swavalamban scheme transitions and design flaws that may exclude informal workers. The findings point out the urgent need for reforms to enhance the pension system's effectiveness and equity, while recognizing LICI's crucial role to cover the informal sector.
22.	Ananth, S., & Gurunathan, K.	2016 *International Journal of Research in Commerce, It & Management*	Performance Of National Pension Scheme in India	The focus of this study is to understand the performance of the various NPS funds provided by different companies, over a period, since its establishment, to identify the best pension scheme fund to choose from the investment.	The paper evaluates NPS-E (Tier I and II) fund performance, finding all funds underperformed the risk-free rate in the first year but showed positive returns over two years. In Tier I, ICICI had the highest three-year return (9.01%) and Reliance the lowest (8.52%), with HDFC leading since inception (9.9%) and SBI trailing (6.24%). In Tier II, UTI had the best three-year return (9.26%) and Reliance the lowest (8.73%), with Kotak leading since inception (6.26%) and LIC performing worst (0.23%). Performance improved in the second year but declined in the third, with negative Jensen's Alpha values throughout.

Table 3: National Literature Reviewed

S. No.	Authors	Year & Journal	Title	Objectives	Findings
1.	Singh, K., & Devi, A.	2022 *Contemporary Issues in Banking, Insurance and Financial Services*	Awareness Regarding Old Pension Scheme and New Pension Scheme among Government Employees	To evaluate the level of awareness of Haryana government employees about the general provident fund and NPS	The study discloses that most OPS subscribers are aware of GPF investment details, with males more informed about investment and tax benefits, while females know more about contribution and withdrawal rules. On the contrary, many NPS holders lack awareness of key aspects like NPS Tier II, penalties, and available options.
2.	Bohidar, A.	2020 *Indian Journal of Law, Polity and*	Role of National Pension Scheme as A	The core objective of NPS is that it offers flexibility, and	The researcher highlights the need for pension planning in India, emphasizing on NPS as a key investment tool that

		Administration	Tax Deduction Instrument	its returns are market-linked but in comparison with the 7th Pay Commission and Provident Fund and often tax-free, benefits.	helps in tax deduction. Initially, it was exclusive for only government employees, its expansion was made in 2009 covering all Indian citizens. Regulated by the PFRDA, the NPS offers low-cost, flexible options, partial withdrawals, and addresses the needs for financial security of non-government employees.
3.	Kurmi, M. K., Kapasi, B., & Paswan, M. R. K.	2020 *Purakala (UGC Care Journal)*	Relative Assessment of The Performance of Various Schemes of National Pension Scheme in India: An Empirical Analysis	The core purpose of this research is to compare the return of various schemes under Tier I and Tier II of NPS.	The researcher has found out that NPS Tier-II funds give higher returns and lower risk than Tier-I funds. Same tier performance is consistent, and better returns can be seen in tier II, than the market with full liquidity, though slightly lower returns than the market, offset by tax benefits. NPS is considered a better option to invest and plan retirement compared to the stock market.
4.	Chourasia, S. S.	2019 *UPA National Peer Reviewed e-journal*	Pension Reforms in Developing Countries: Trends, Issues, And Impacts	The purpose of this to analyze the present state of pension schemes in different countries worldwide, particularly focusing on the discrepancy between developed and developing countries, and to emphasize the differences in the given pension benefits.	The paper indicates major gaps in pension benefits between developed and developing countries, with many developing nations offering an insufficient security to people after retirement. Longer life expectancies strain outdated pension systems, and many workers, especially in developing regions, lack coverage. Urgent reforms are needed to modernize and make pension systems inclusive and efficient, particularly for the unorganized sector, and to integrate technology for better benefit delivery.
5.	Khan, D. A., Pali, D.	2019 *UPA National Peer Reviewed e-journal*	Pension Scheme for Government Employees: Issues & Concerns	The study aims to analyze the pension scheme for government employees, including the issues and concerns associated with it.	The study presents the following key findings: - Almost half of Fortune 500 employers in the utility sector still offer pension plans. - The new pension scheme (NPS) announced in 2003 for government employees (except armed forces) replaces the defined benefit

					system with a contribution-based system. - Under the NPS, retirees can withdraw 60% of the lump sum and use the remaining 40% to purchase a life insurance annuity scheme. - If a government employee leaves the NPS before the retirement age of 60, the mandatory annuity becomes 80% of the total pension wealth.
6.	Kolhe, M. T.	2019 *UPA National Peer Reviewed e-journal*	Pension Reforms in India	The paper aims to analyze the challenges and benefits related to the pension scheme for government employees in India.	The paper identifies key issues with the NPS: 1.Weak incentives for mediators, low awareness, and lower returns than other investments. 2. Uncertain tax rules at withdrawal and the compulsory annuity requirement. 3. Competition from the compulsory EPF and challenges in reaching the unorganized sector.
7.	Patil, P. G.	2019 *UPA National Peer Reviewed e-journal*	Pension System	The paper purpose is to aim provide a comprehensive understanding of the NPS, its architecture, subscriber base, and the tax benefits associated with it.	Key findings: 1. NPS has an unbundled structure with different entities handling various functions. 2. It offers investors a choice of investment schemes and fund managers. 3. As of December 2016, NPS has over 1.41 crore subscribers. 4.It provides tax benefits under Sections 80C, 80CCC, and 80CCD of the Income Tax Act. 5. NPS allows restricted withdrawal and flexible investment options.
8.	Jain, A., & Sharma, K. D.	2018 *National Journal of Research and Innovative Practices (NJRIP)*	A Study on Comparison of National Pension Scheme 2004 with Other Retirement Pension Plans and Subscriber	This study estimates the NPS's working and performance in government organizations and compares with other retirement plans also examines	The paper found out that Pension schemes in India are increasing due to their societal importance and inclusion in social activities. NPS, successfully implemented for both government and private sectors, has remarkably impacted society and improved quality of life.

			Views about NPS in Some Selected Enterprises with special reference to Kota district	Tier I & II differences and suggests improvement suggestions.	Employees feel secure with NPS, expecting good returns after retirement. With various pension options available, people are increasingly opting for multiple schemes for better financial planning. The study found NPS to be the most trusted pension plan.
9.	Thaker, A. A., Maisuria, M. H., & Jariwala, P. T.,	2018 *Emerging Trends and Innovations in Modern Management*	An Empirical Study of National Pension Scheme with respect to Tire 1 (Corporate Bonds, Equities and Government Securities)	This study examines the relationship between investment avenues and guides on selecting the best NPS fund by comparing five-year returns.	The researcher found that average returns for all funds exceeded 11% due to strong equity market performance, with UTI RSL and ICICI PF leading over five years and since beginning. 'C' schemes performed well in the long term, but Reliance PF and UTI RSL were the worst performers since beginning. Others were outperformed in the 'G' scheme by LIC fund managers. Owing to its greater flexibility in equity exposure, NPS is better compared to traditional retirement schemes like EPF and PPF. As of the 2017 budget, salaried individuals could withdraw 25% of their savings, with some tax-free NPS withdrawals.
10.	Ramesh, S.	2017 *Parikalpana - KIIT Journal of Management*	Pension Plans: Awareness Among Private Sector Employees – An Empirical Study	To evaluate the level of awareness among private sector employees in Salem and Erode districts of Tamil Nadu.	The study highlighted that the employees lacked sufficient awareness level about various pension schemes available in the insurance market and, they are not aware about their benefits. However, they are interested in knowing about them and investing in the same, if properly guided. Hence, the study recommends insurance companies to carry out awareness campaigns in the State to aware employees.
11.	Jha, P., & Acharya., N.	2013 *HelpAge India-Research & Development Journal*	Social Security for the Elderly in India: A Note on Old Age Pension	This study explores the comprehensive pension scheme and assesses the effectiveness of existing social security schemes in supporting	Researcher concluded that social security schemes in India for the elderly are inadequate and disintegrated and lack universal coverage. It acknowledges funding challenges for a universal pension but suggests possible revenue strategies. The paper

				India's elderly population.	calls for comprehensive policy reform to better support vulnerable populations, drawing on lessons from other countries' frameworks.

RESEARCH GAP

Even with the growing importance of the National Pension Scheme (NPS) in India's retirement planning avenues, few research gaps demand further investigation. There is a strict need for comprehensive studies assessing the awareness and understanding of the NPS among diverse subscriber groups, especially in rural and semi-urban areas. Moreover, it calls for a comparative analysis of the financial performance of public and private funds under NPS, which is one of the most important aspects for assessing the scheme's competitiveness. The direct impact of NPS on retirement planning and financial security of investors has been overlooked yet, particularly upon its effect on long-term economic viability and retirement readiness. Also, research on subscribers' satisfaction and the challenges faced by subscribers in managing their NPS accounts is limited, highlighting the need for studies that can inform improvements in service delivery and user experience. Furthermore, the integration of digital technologies in NPS transactions presents a promising area for research, given its potential to improve transparency, efficiency, and security. There is also a notable gap in the research, concerning the future growth prospects of the NPS. Finally, studies on subscriber behavior and preferences of the NPS in reducing old-age poverty and enhancing social security, are minimal. Addressing these research gaps is essential for a holistic understanding of the NPS and for developing policies that ensure its long-term sustainability and broader adoption. Therefore, "FINANCIAL ODYSSEY OF INDIA's NATIONAL PENSION SCHEME: APPRAISAL OF TRENDS, FINANCIAL PERFORMANCE AND FUTURE PROSPECTS" has been taken into consideration.

NEED OF THE STUDY

1. This study will help to ensure NPS sustainability and adaptability by analysing future demographic and economic trends.
2. This study will help to implement effective retirement planning to ensure financial security for the aging population.

3. This study will help to motivate various workforce sectors for retirement planning by addressing diverse pension needs.
4. This study will help to reduce challenges faced by subscribers to foster efficient participation by the masses.
5. This study will help to increase awareness and participation in the NPS, especially in underserved areas, to ensure more inclusive access.
6. This study will help to identify policy improvements for a more effective, inclusive, and sustainable NPS.
7. This study will help to compare NPS fund performance to enhance competitiveness and investment strategies.
8. This study will help to integrate advanced technologies to boost NPS efficiency, accessibility, and user-friendliness.

OBJECTIVES OF THE STUDY

1. To examine the trend in enrolments of subscribers in the NPS across different sectors and demographic groups.
2. To evaluate and compare the financial performance of various NPS schemes managed by public & private fund managers.
3. To project the future growth potential of NPS subscribers and their assets under management.
4. To assess the perception of the National Pension Scheme among government employees, private sector employees, and individual subscribers.

RESEARCH HYPOTHESES

The following null hypotheses will be formulated and tested to achieve the study's objective. If the research objectives necessitate additional null hypotheses will be prepared and tested:

H_{01}: There is no significant difference in the enrolment rates of the National Pension Scheme (NPS) across various sectors and demographic groups.

H_{02}: There is no significant difference in financial performance between NPS schemes managed by public and private fund managers

H_{03}: There is no significant difference in the awareness and understanding of the National Pension

Scheme (NPS) among government employees, private sector employees, and individual subscribers.

RESEARCH METHODOLOGY

RESEARCH DESIGN:

The research design for the study will be descriptive as well as analytical in nature.

DURATION OF THE STUDY:

In this study, ten financial years will be taken into consideration commencing from 2014-2015 to 2024-2025.

SAMPLE SIZE AND SELECTION CRITERIA:

Primary data: NPS subscribers i.e., Government Employees, Corporate Employees, and Individual Subscribers who have been contributing to NPS for 5 years will be taken as a population. Cochran's Sample Size formula has been applied as per the formula at least 385 respondents will be taken as a population.

$$n_0 = \frac{z^2 pq}{e^2}$$

$$n_0 = \frac{(1 \cdot 96)^2 (0.5)(0.5)}{(0.05)^2}$$

$$n_0 = 385$$

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}}$$

$$n = \frac{385}{1 + \frac{(385 - 1)}{1{,}52{,}64{,}338}}$$

$$n = 384.99$$

$$n = 385 \text{ (Round off)}$$

Hence,

n_0= Representative Sample for Proportions (Sample Size)

z = Z value at 95% Confidence level is 1.96.

p = Population proportion assumed as 50% (often set to 50% for maximum variability)

q = 1-p

e = Margin of error (0.05)

(**Source:** Israel, G. D. (2009))

Secondary data: For this study, various fund managers will be involved, with some being added to the list and others discontinuing their operations over time. For consistency, only those fund managers whose operations will continue uninterrupted from 2014-2015 to 2024-2025 will be considered.

SAMPLING TECHNIQUE:

NPS subscribers will be selected through convenience sampling.

DATA COLLECTION:

Data will be collected through primary and secondary sources.

Primary Data: The researcher will consider a sample of at least 390 NPS subscribers. Hence, to collect the information from the respondents, a questionnaire will be distributed so that at least 390 valid responses will be collected, and the bifurcation of respondents will be as follows

Table 5: Categorization of Respondents

S. No.	Respondents	No. of Respondents
1.	Government Employees	130
2.	Corporate Employees	130
3.	Individual Subscribers	130
	Total Respondents	**390**

Secondary Data: Secondary data will be collected through the Pension Fund Regulatory and Development Authority (PFRDA) websites, NPS Trust, NSDL, various annual reports available on the respective pension fund manager's website, and other websites related to the pension fund, research papers, journals, etc.

TOOLS AND TECHNIQUES:

The researcher will use statistical and presentation tools to conduct this study.

Statistical Tool: The researcher will use different statistical tools and software such as MS Office, IBM SPSS and Jamovi will be used for data analysis. The researcher will adopt a few other tools such as Mean, Standard Deviation, Shapiro-Wilk, Cronbach Alpha, Chi-square, Anova/ Kruskal Wallis, Beta ratio, Sharpe ratio, econometric model, etc., and other tools will be used as per the need of the study.

Presentation Tool: For a presentation of the data, various presentation tools will be used such as graphs, charts, etc.,

Table 6: Objective-Wise Research Methodology

S. No.	Objectives	Research Methodology
1.	To examine the trend in enrolments of subscribers in the NPS across different sectors and demographic groups.	To attain this objective, the researcher will collect data from different sectors (central government, state government, corporate sector, and all citizen) and demographic groups (state-wise, age, gender) from various secondary sources such as PFRDA, NPS Trust, and NSDL, etc., and this data will be analyzed with the help of percentage, Trend analysis, etc.
2.	To evaluate and compare the financial performance of various NPS schemes managed by public & private fund managers.	To accomplish this, the researcher will collect data on various schemes managed by public (SBI PF, LIC PF & UTI PF) & private (HDFC PF, ICICI PF, Kotak PF) fund managers and financial performance (returns, risk-adjusted return) will be calculated by Beta ratio, Sharpe ratio, etc. and Anova/ Kruskal Wallis, etc. will use to test the hypothesis.
3.	To project the future growth potential of NPS subscribers and their assets under management.	To attain this objective, the econometric model will be used to analyze historical trends to accurately forecast the future growth of NPS subscribers and assets under management.
4.	To assess the level of perception of the National Pension Scheme among government employees, private sector employees, and individual subscribers.	To accomplish this objective, a questionnaire will be served to the subscribers for collecting data and the hypothesis will be tested by Chi-Square Test.

Table 7: Proposed Chapter Plan

Chapter 1	Introduction
Chapter 2	Review of Literature
Chapter 3	Analysis of Trends in Enrolment of Subscribers
Chapter 4	Analysis and Compare the Financial Performance of Different NPS Schemes managed by Public & Private Fund Managers
Chapter 5	Prediction of the Growth of NPS Subscribers and their Assets Under Management
Chapter 6	Analysis of the Perception of Subscribers in NPS
	Findings, Conclusion & Suggestions

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